TUP900
Troubleshooting Guide

Revision 1.2

Table of Contents

3

Getting Started

Printer Components:

Cable Connections:

Assembly – Installing the Interface

Place the interface sub-assembly into the interface slot as shown. Take care to be sure the interface cartridge is seated properly into its connector.

Using a #2 Phillips screwdriver, install the mounting screws included with the printer.

Required
#2 Phillips Screwdriver

Screws (2) Included

Interface Type…

Parallel

USB

Serial

Ethernet
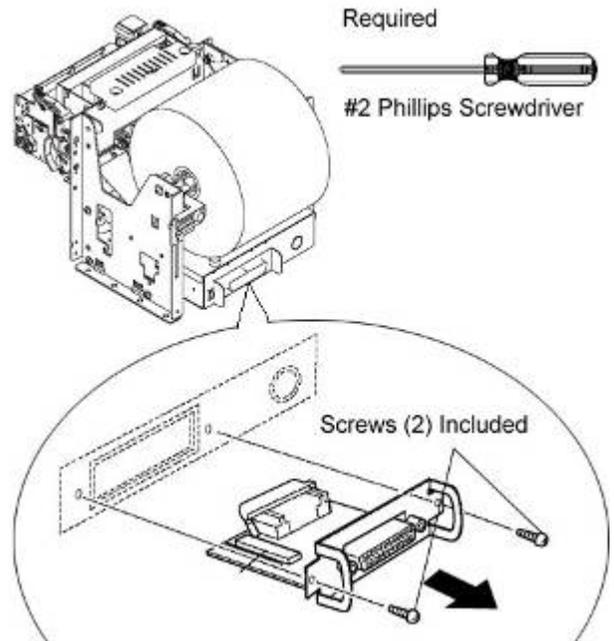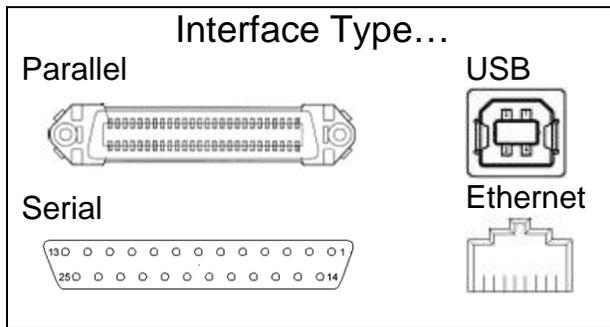
Connecting the Power Adapter:

Industry Standard Power Connector:
The TUP900's power supply input is a female Hoshiden (TCS7960-532010) connector. This connector is common to the PS60L power supply from Star, which is the recommend power supply for the TUP900.

Loading Paper:

Assembly – Paper Roll Setup

It is necessary to adjust the paper roll holder for the width of the paper you use. If the setting position is incorrect, the paper roll will be supplied improperly to the mechanism which in turn causes paper transport problems. Thus, it is should be properly adjusted.

Fig. 8.3.A
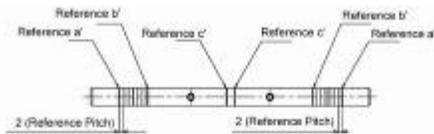
Fig. 8.3.1

Fig. 8.3.2

Fig. 8.3.3

The following table shows the paper roll holder and paper core inner diameter range.

Paper roll Holder Types	Paper Core Diameter Ranges
Paper roll Holder (1)	25.4 mm ± 1
Paper roll Holder (2)	50.8 mm ± 1
Paper roll Holder (3)	76.2 mm ± 1

Note 1) The unit is assembled for 1 inch paper cores when shipped from the factory. Also, it is set for a paper width of 111.5 ±0.5 (take-up width of 112 +0.5/-1) when the printer is shipped from the factory.

Roll Holder Size	Paper Thickness
1" or 25.4 mm	65 to 100 µm
2" or 50.8 mm	100 to 150 µm
3" or 76.2 mm	100 to 150 µm
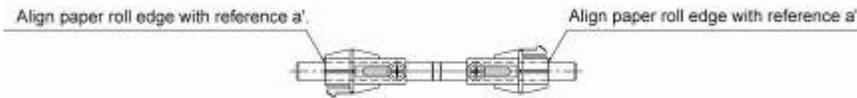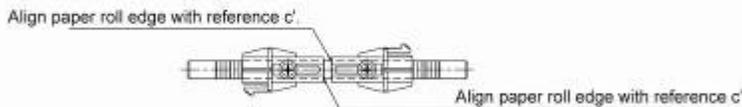
8.3 A is a reference for the paper roll holder unit paper roll shaft position. Adjust or mount the paper roll holder unit for the core diameter and width of the paper you intend to use.

8-3-1 Handling 111.5 mm Paper Width
See Fig. 8.3.1 for the paper roll holder setting position to handle paper widths of 111.5 ±0.5 mm.
Position the edge of the paper roll holder onto the central position of the references a and a'.

See the figure to assembly at the correct position.

Note 1) The paper roll holder is assembled to that position when shipped from the factory.

8-3-2 Handling 82 mm Paper Width
See Fig. 8.3.2 for the paper roll holder setting position to handle paper widths of 82 ±0.5 mm.
Position the edge of the paper roll holder onto the central position of the references c and c'.
See the figure to assembly at the correct position.

Note 1) In this case, be careful because the edge of the paper roll holder positioned on the reference is the opposite.

8-3-3 Handling 79.5 mm Paper Width
See Fig. 8.3.3 for the paper roll holder setting position to handle paper widths of 79.5 ±0.5 mm.
Position the edge of the paper roll holder onto the central position of the references b and b'.
See the figure to assembly at the correct position.

Assembly – Paper Roll Setup Continued

Once the paper roll holder is properly configured for the roll to be used, simply insert the roll holder into the paper core as show.

Be sure that the cut end of the paper roll is properly cut to ensure proper paper loading.

Heat-sensitive Side (Recording Side)
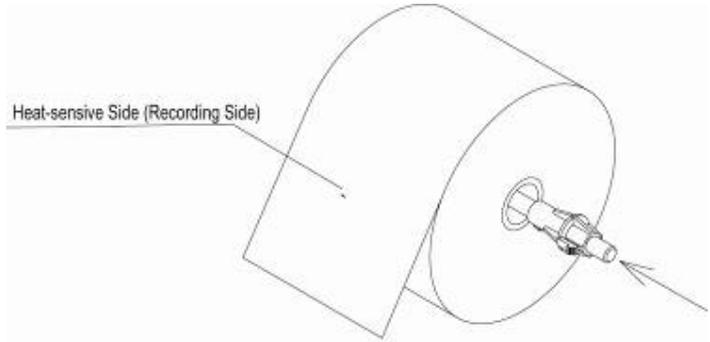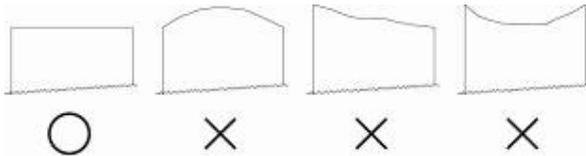
To aid in the installation of the paper roll, the TUP900's mechanism is hinged to the base of the printer allowing the unit to fold open for easier access to the paper inlet path (see below)
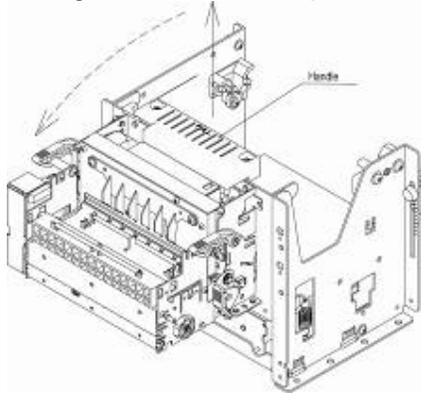
Lift handle and pull unit forward.
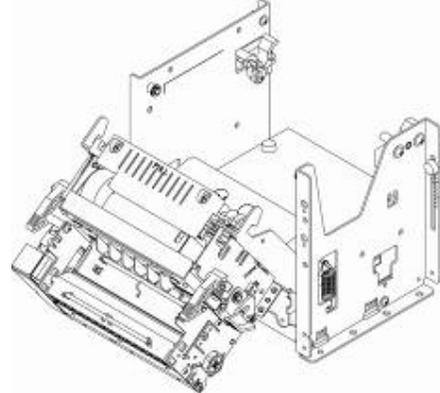
In this position, it will be much easier to access the paper inlet for loading of paper.
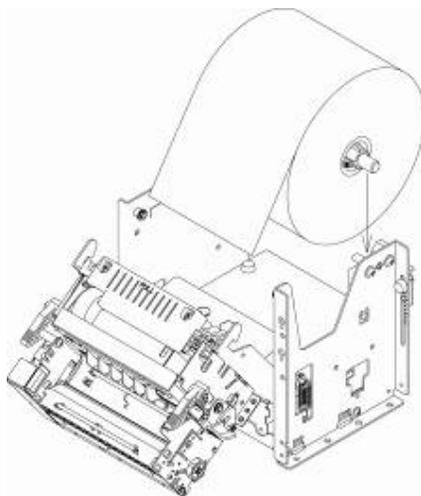
Position the paper roll as shown.
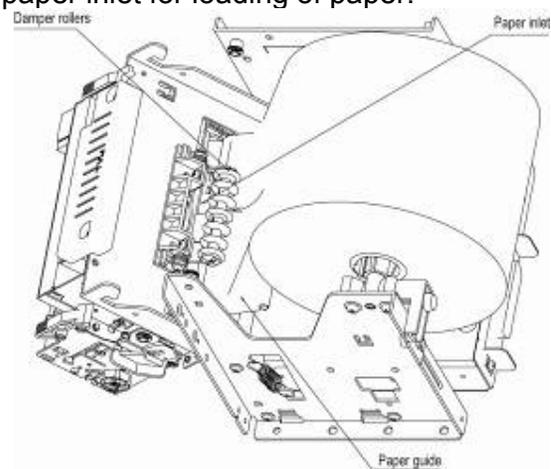
Slide the cut end of the paper roll into the paper inlet being careful to feed the paper underneath the damper rollers.

NOTE: The semi-auto paper loading of the TUP900 can sometimes cause the printer to enter an error condition if paper is not allowed to feed smoothly into the paper inlet path. In the event of an error,reset the printer by turning the power switch OFF and then ON again.

Star Micronics America, Inc., 1150 King Georges Post Rd, Edison, NJ 088371
Date: 12/3/2007

Paper Feed Sensor Adjustment:

TUP900 Paper Feed Sensor Adjustment – See photos below

This is a multi-step process:

1. Ensure that the paper is loaded on the spindle and that the two black plastic sleeves are positioned on either side of the paper roll in order to keep the roll centered on the spindle and from sliding left or right.
2. Power on the printer. If the paper does not automatically feed through the presenter on power up then you will see a solid red light on LED 2 that will start flashing after a second or two following power up. At this point the paper width sensor needs an adjustment.
3. Power off the printer.
4. Remove the printer from the kiosk and turn it upside down to locate the Paper Feed Sensor assembly. Make sure the Presenter is closed.
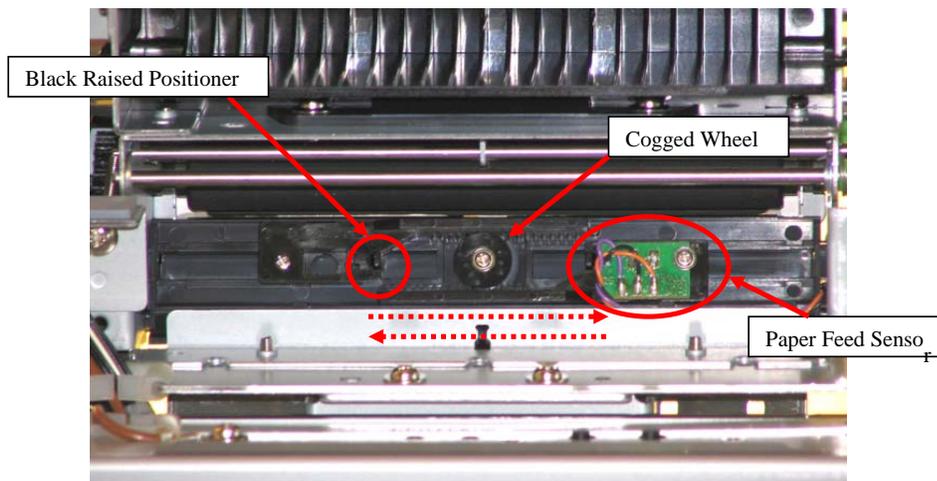
5. Turn the printer over and position the end of the paper under the rear white feed rollers and slide the paper into the paper feed area.
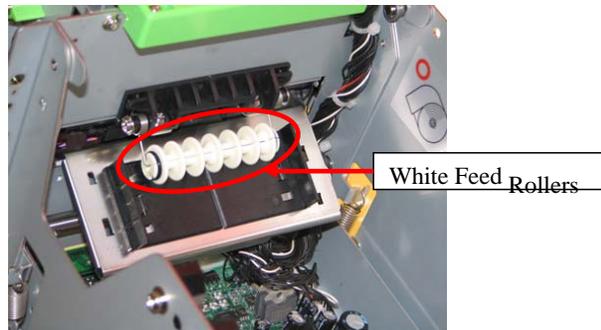
6. Power on the printer. You will see 2 lights, a solid green power LED 1 and a solid Red error light on LED 2 that will start flashing after a second or two following power up. If the printer needs a fine adjustment of the Paper Feed Sensor, turn the printer over in order to access the sensor assembly.

7. Slowly slide the black raised positioner on the paper feed assembly until the red error LED2 stops flashing and the paper begins to feeds *Warning: Over adjustment will cause the paper to snag on the sensor.

8. At that point the paper width sensor is set properly to detect the new paper and the printer is ready to be installed in the kiosk.

Driver Installation

DRIVER INSTALLATION:

Step 1
 To download drivers from our website – go to the below link:
http://www.starmicronics.com/printers/printers_pages/support/drvr_frames/drvr_framset.html

You will need the Raster driver. When you click on the link to open the driver, you will see the Printer Driver installer (shown below):

Step 2 – Parallel/Serial Installation
In the driver menu, choose your TUP900 printer model (TUP942 or TUP992)
For Port, choose LPT1 for Parallel then click on the 1st option Automated printer install.
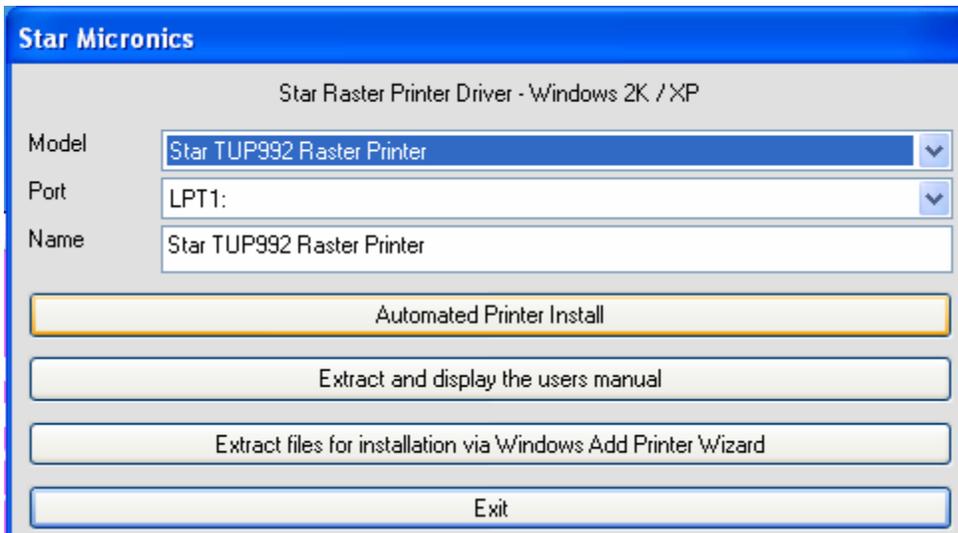
Step 3
Say NO to the Language Monitor
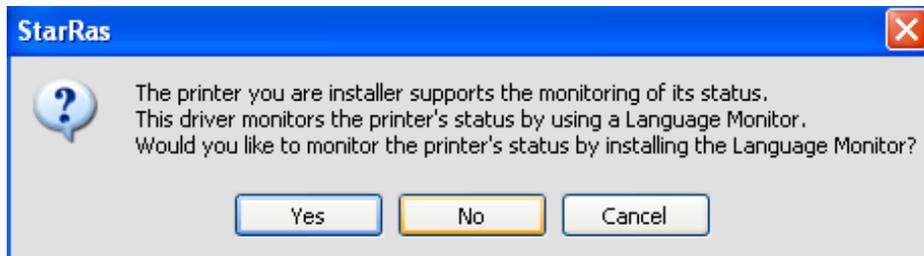
Step 4
When your printer has been successfully installed, it will create a printer icon in Printers and Faxes. If you would like to print a test page, say yes when prompted. Your printer is now installed and ready to print.

_____
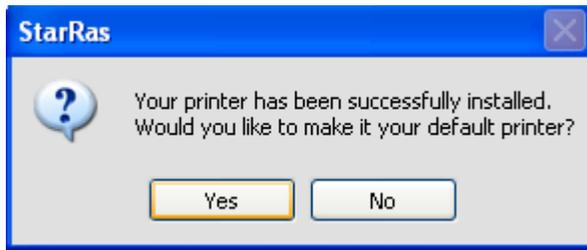
USB Installation:

*Note: Make sure the printer is turned off – the USB cable can be plugged into the computer and the printer.

Step 1 -
The Printer Driver installer will come up.

Step 2
For USB, printers need to be installed manually – click on the 3rd option Extract Files for installation via Windows Add printer Wizard

Star Micronics America, Inc., 1150 King Georges Post Rd, Edison, NJ 088376
Date: 12/3/2007
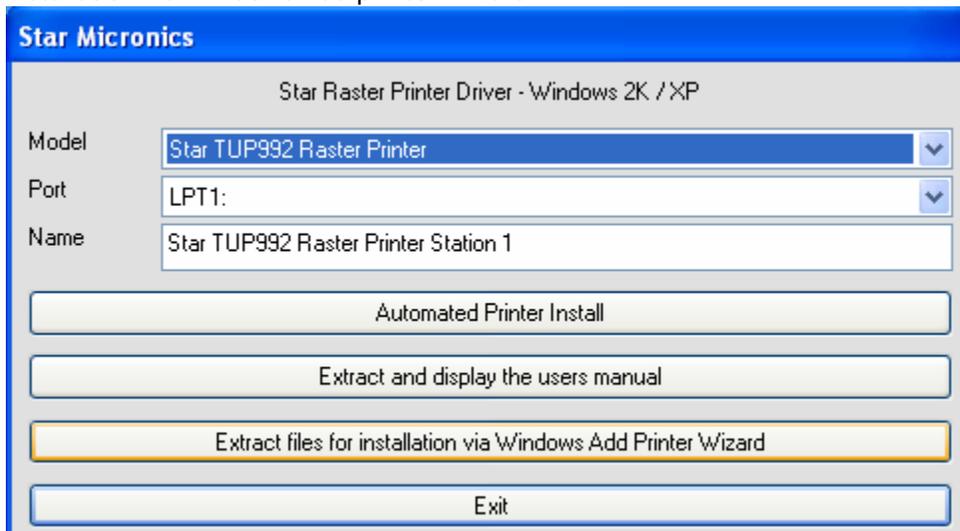
Step 3
If you intend to use the status monitor function to get status from the printer (recommended for parallel and USB) Please choose the driver accordingly and say YES to the question re Status Monitor installation.

If you intend to use the printer without status monitor (only recommended for serial printers) please choose the driver and say NO to the question re Status Monitor installation.

StarRas

The printer you are installer supports the monitoring of its status.
This driver monitors the printer's status by using a Language Monitor.
Would you like to monitor the printer's status by installing the Language Monitor?

Yes   No   Cancel
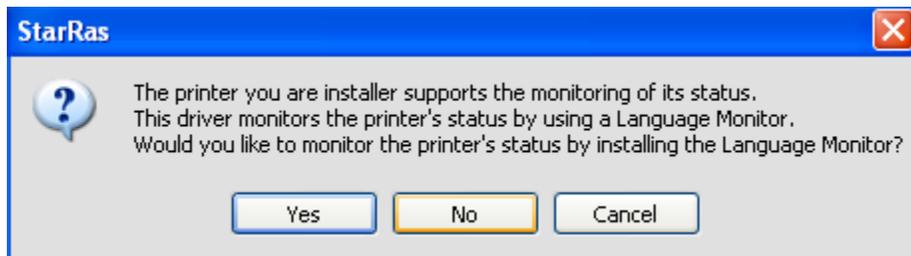
Step 4
It will extract a Star folder to the desktop – click OK to close and click Exit from Raster driver.

StarRas

The folder Star has been created in the same directory from which this installer was executed.
All files have been extracted into the Star folder.
Use the Add Printer Wizard to manually install your printer.

OK
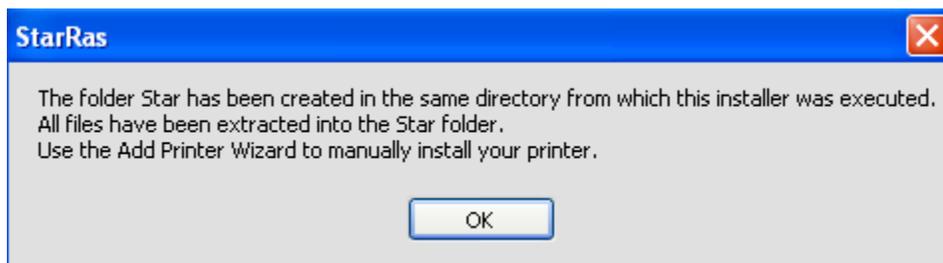
Step 5
Turn the printer ON and the Found New Hardware Wizard will come up.

Step 6
Choose the last option – No, not this time and click Next

Found New Hardware Wizard

Welcome to the Found New Hardware Wizard

Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy

Can Windows connect to Windows Update to search for software?

○ Yes, this time only
○ Yes, now and every time I connect a device
◉ No, not this time

Click Next to continue.

< Back   Next >   Cancel

Star Micronics America, Inc., 1150 King Georges Post Rd, Edison, NJ 088377
Date: 12/3/2007

Step 7
Click on the last option – Install from a list or specific location (Advanced) and click Next
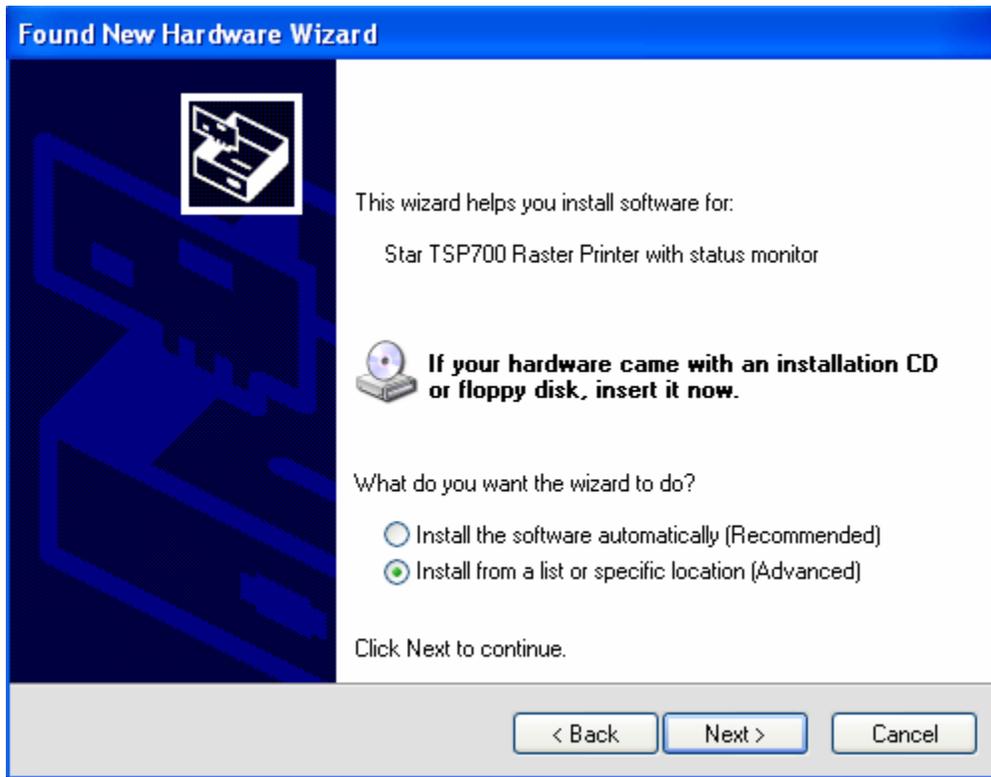
Step 8
Next, choose the last option – Don't search. I will choose the driver to install and click Next
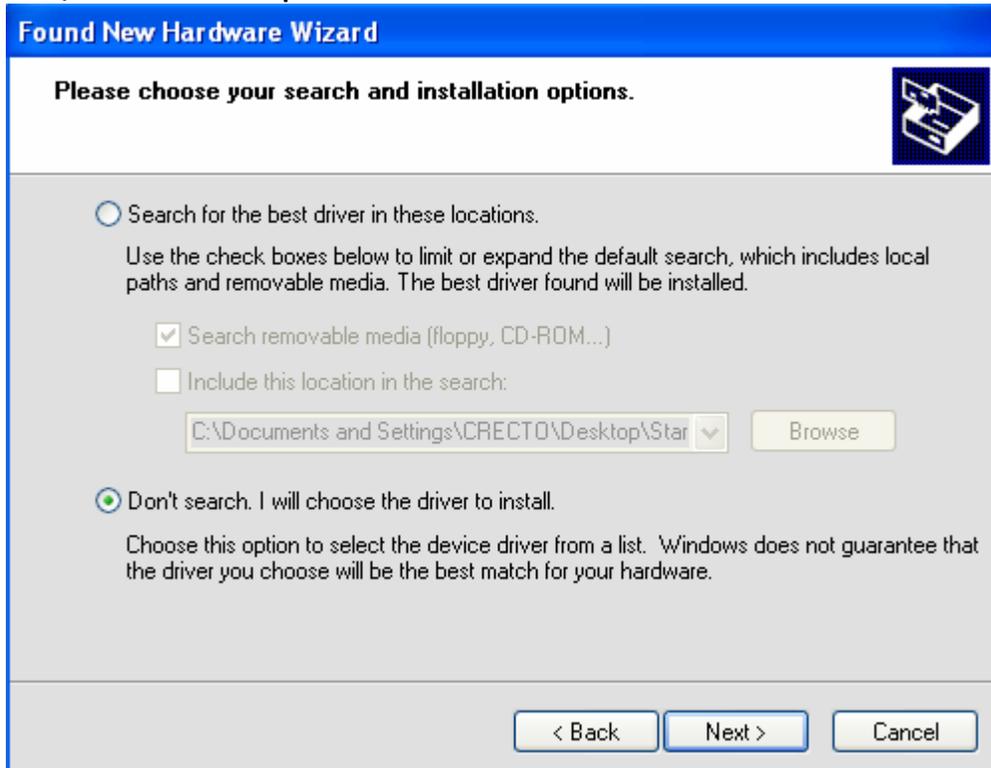
Step 9
Click on Have Disk..
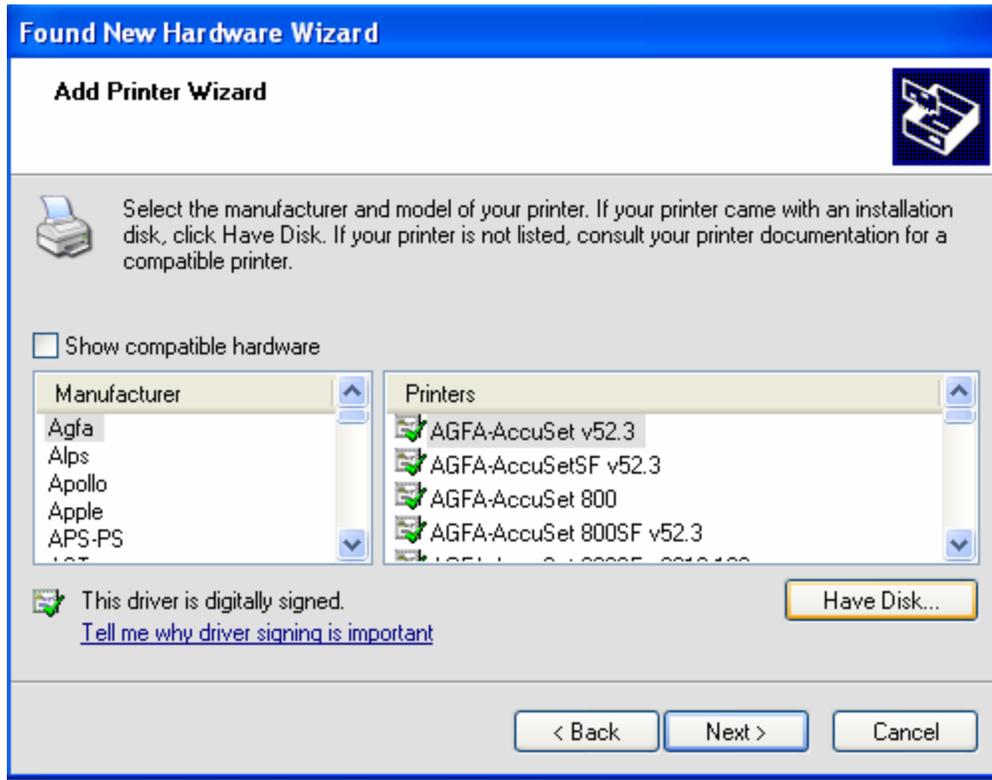
Step 10
Click on Browse
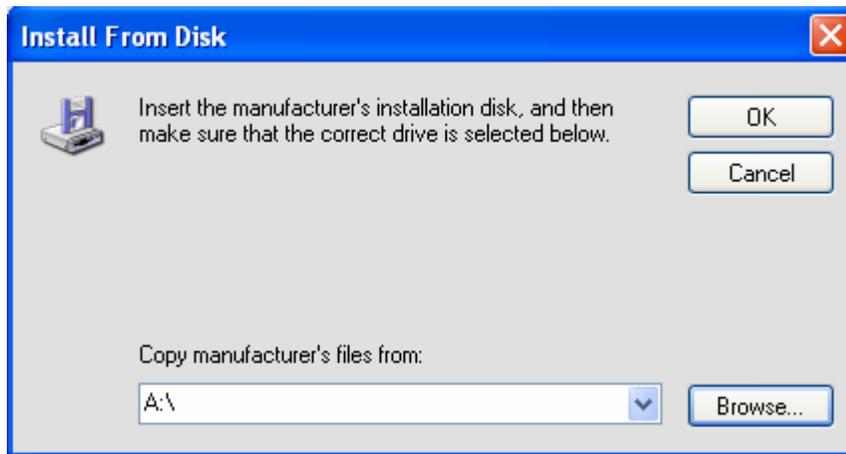
Step 11
At the top in Look in, click on Desktop
Open the Star folder
Open StarRas
Click on OEMPRINT.INF and click the Open button – then click OK

14
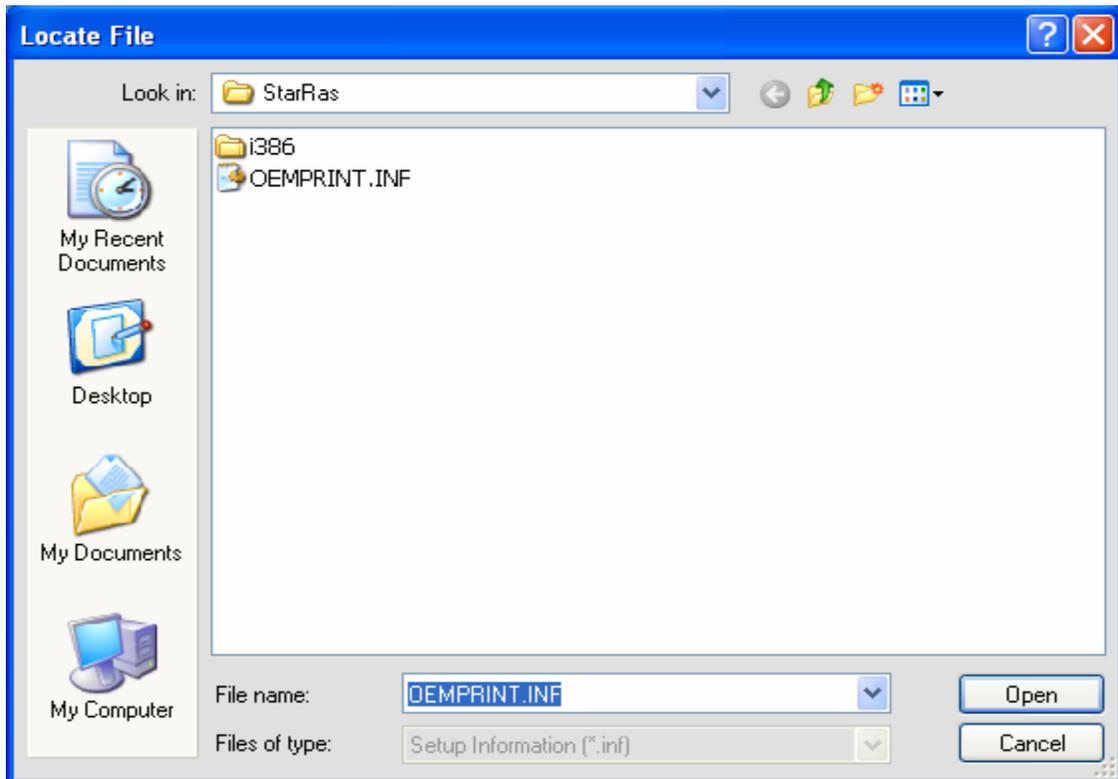
Step 12
Choose the TUP900 without Status Monitor and click Next
Then click Next to finish the driver installation.
You will click Finish to close the Wizard

Step 13
Open Printers and Faxes and the TUP900 driver should be listed.
You have successfully installed the TUP900 printer.

Troubleshooting

TROUBLESHOOTING:

Below is a list of common issues that may occur with the TUP900 and resolutions for those issues:

Issue: Customer does not use paper adjustment to fit the paper size of the roll, causing the paper to shift around.

Resolution: The TUP900 has a paper guide that can be adjusted to use paper that is 80mm – 112mm in width. The paper guide is black and plastic and is located behind the presenter and can be adjusted to fit the paper width.

Issue: Paper jams in the presenter and it errors out and doesn't complete printing.

Resolution: Open presenter in the front and clear out paper jam to resume printing.

Issue: Customer would like the printer to loop in the presenter to avoid customers pulling the receipt out while it is still printing.

Resolution: Use the TUP900 configuration utility to enable the Looping feature.
Issue: When the receipt is finished printing, it feeds extra paper and errors out.

Issue: Print jobs are remaining in print queue and do not print.

Resolution: Clean the sensor on the presenter.

Issue: When the receipt is finished printing, it feeds extra paper and errors out.

Resolution: Do a self test to check if the black mark sensor is Valid or Invalid.
If black mark paper is being used – make sure the black mark sensor is Valid.
If regular thermal paper is being used – make sure the black mark sensor is Invalid.

To enable/disable the black mark sensor, use the TUP900 configuration utility. This utility can be located in the drivers section of the Star Micronics America, Inc. website.

Control Panel Specifications:

Green   Red

Power LED   Error LED

SW2   SW1
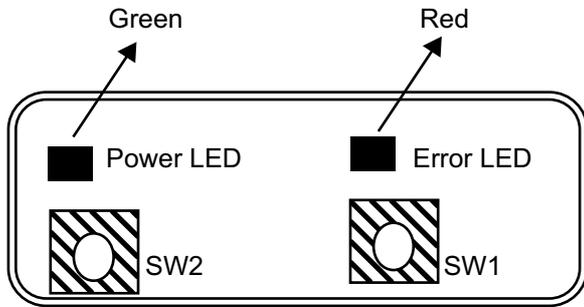
*1

The switches and LEDs are on the board.

The drawing of the operation panel is for reference and may differ from the actual panel.

-- 1 When Power is ON

Hex Dump Mode   Self-test

--- 2 When Power is ON (Sensor Adjustment Mode)

Adjustment mode for Paper Near End Sensor

No Switch Input Sensor Adjustment Mode for PE/Black Mark

--- 3 When Online

Paper Feed

Printer Reset (Hold for 2 seconds)

--- 4 When errors occur

Error cancellation   Paper discharged

Printer Reset (Hold for 2 seconds)
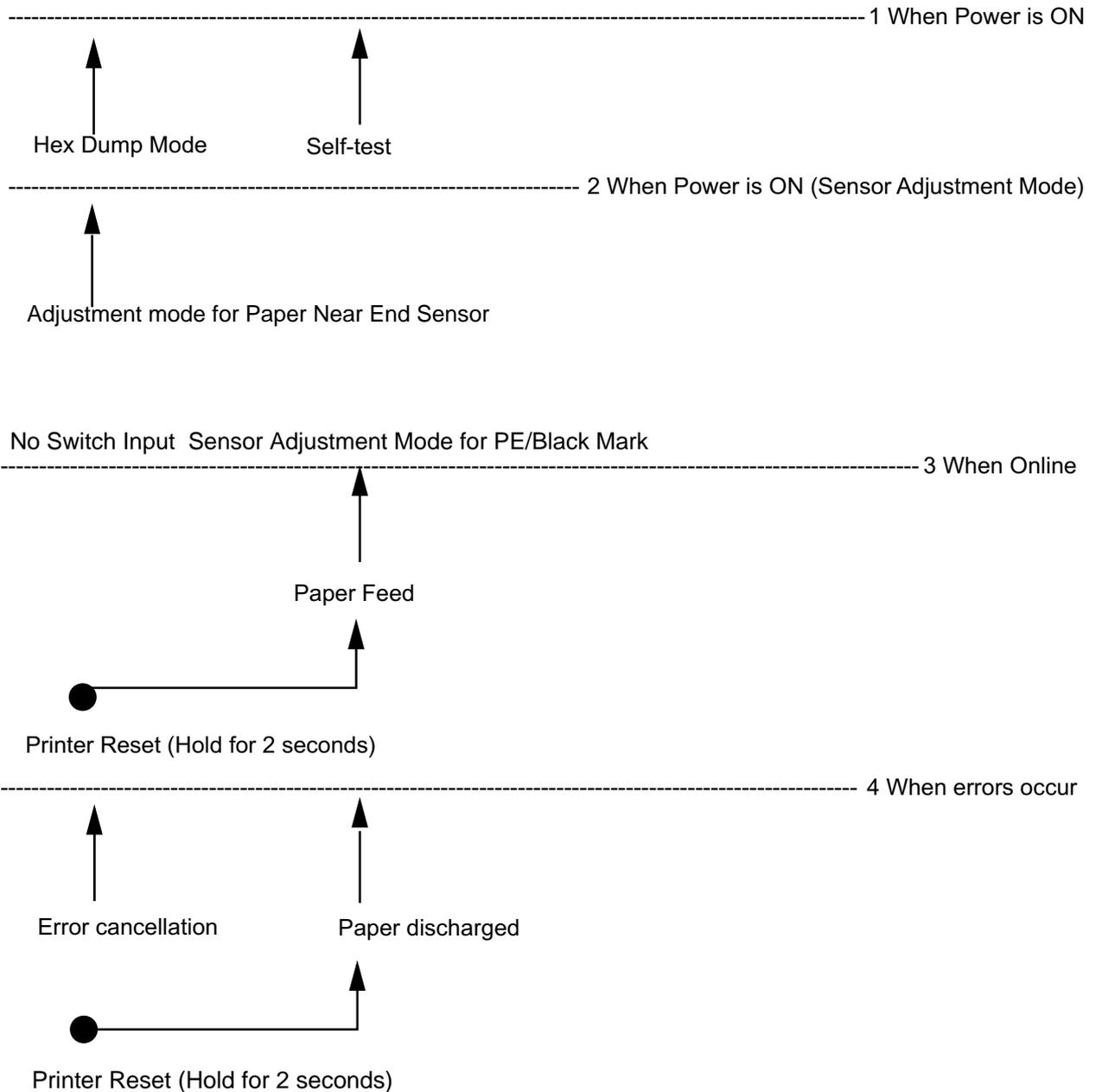
① When Power is ON

SW Input	Operation
SW1	Self-test Print
SW2	Hex Dump Mode

② When in Sensor Adjustment Mode and Power is ON (Sensor Adjustment Mode is selected using by setting the DIPSW1-4 on the main board to OFF.)

SW Input	Operation
No SW Input	Sensor Adjustment Mode for PE/Black Mark

③ When Online

SW Input	Operation
SW1	Paper Feed (*1)
SW1 + SW2 (Hold for 2 sec.)	Printer Software Reset

*1) Details for Paper Feed Specifications

Presenter Contact Status	Black Mark Function	Paper Feed Specifications
Non-contact	Disabled	Paper feed continues while SW1 is input
	Enabled	Performs TOF operation
Contact	Disabled	Paper Feed + Full Cut + Presenter Paper Discharge Ignores SW input under the following conditions • When LF motor is operation • When paper is being supplied to the presenter
	Enabled	TOF + Full Cut + Presenter Paper Discharge Ignores SW input under the following conditions • When LF motor is operation • When paper is being supplied to the presenter

④ When errors occur

SW Input	Operation
SW1	Paper Discharge (*2) Function executed only under the following conditions • Cover is closed • No Paper
SW2	Error cancel operation (according to MSW1-E settings)

*2) Paper Discharge

This function cancels the paper wait state of the platen that exists when there is no paper detected when printing by feeding paper. Paper can be easily removed without opening the cover, by using this function. However, caution must be exercise in using this function when there is no paper being waited for at the platen because over use can damage the print head.

Status		LED Specifications	
		Power LED	Error LED
Normal State		ON	OFF
Auto-recovery Error	Printing stops because of detection of the high temperature of the head	Blink 500msec	OFF
Recoverable Errors	PE Error	ON	Blink 500msec
	NE Error	ON	Blink 2000msec
	Cover Open Error	ON	ON
	Black Mark Error	ON	Blink 500msec
Non-recoverable Errors	Auto-cutter Errors	OFF	Blink 125msec
	Presenter Paper Jam Errors	OFF	Blink 250msec
	FLASH Access Errors	OFF	Blink 500msec
	EEPROM Access Errors	OFF	Blink 750msec
	SRAM Access Errors	OFF	Blink 1000msec
	Thermistor Errors	OFF	Blink 1500msec
	Power Voltage Errors	OFF	Blink 2000msec

Identify Error Conditions:

This error automatically cancels E errors by varying the status internally on the printer.

Error	LED		Cause	How to Recover
	Power	Error		
Printing Stops Because Detection of High Temperature Head	Blink 500msec	OFF	Head Thermistor Temperature Detected (When detected to be over 60°C)	Automatic Recovery when Head Thermistor Temperature Detected to Drop (When detected to be under 55°C)

This error cancels errors while maintaining the printer's status, by executing a determined error recovery means.

Error	LED		Cause	How to Recover
	Power	Error		
NE Error	ON	Blink 2000msec	Not enough paper	Replace the paper
PE Error	ON	Blink 500msec	Paper Out Detection	1. Open the cover and remove the paper in the presenter and printer. 2. Replace the paper. 3. Manually setting of the paper Set the paper and close the cover. Error cancel SW input Auto-loading of the Paper Close the cover. Insert paper into the printer's paper supply inlet. Auto-loading starts. 4. Cut paper. 5 Paper discharged to front of presenter when presenter is connected.
Cover Open Error	ON	ON	Cover Detected to be open	1. Remove paper in the presenter and in the printer. 2. Manually setting of the paper Set the paper and close the cover. Error cancel SW input Auto-loading of the Paper Close the cover. Insert paper into the printer's paper supply inlet. Auto-loading starts. 3. Cut paper. 4 Paper discharged to front of presenter when presenter is connected.
Black Mark Error	ON	Blink 500msec	White detected over 400 mm long	Black mark paper size error Replace the Black Mark paper Adjust sensitivity in the sensor adjustment mode

This error requires the printer to be reset after executing a determined error recovery means because a fatal error has occurred.

The printer many need to be repaired if the same error occurs even after resetting the printer.

Error	LED		Cause	How to Recover
	Power	Error		
Auto-cutter Errors	OFF	Blink 125msec	Cutter failure	Check/repair the cutter
Presenter Paper Jam Errors	OFF	Blink 250msec	Paper jam in Presenter	Remove paper from the Presenter
FLASH Access Errors	OFF	Blink 500msec	FLASH ROM Access Errors	Repair
EEPROM Access Errors	OFF	Blink 750msec	EEPROM Access Errors	Repair
SRAM Access Errors	OFF	Blink 1000msec	SRAM Access Errors	Repair
Thermistor Errors	OFF	Blink 1500msec	Head Thermistor Error Value Detected	Repair
Power Voltage Errors	OFF	Blink 2000msec	Power Voltage Error Value Detected	Check/repair the power supply

Dip Switch Setting:

1) When mounted with a parallel interface   <At Ex-factory: All are turned ON.>

DIPSW1	Function	ON	OFF
DIPSW1-1	Emulation	See table below *2	
DIPSW1-2	Emulation	See table below *2	
DIPSW1-3	(Reserved: Fixed at ON)	-	-
DIPSW1-4	Sensor Adjustment Mode	Enabled	Disabled
DIPSW1-5	Reset by INIT Signal	Enabled	Disabled
DIPSW1-6	BUSY Condition	Reception Buffer Full/OFF-LINE	Reception Buffer Full
DIPSW1-7	(Reserved: Fixed at ON)	-	-
DIPSW1-8	NE Sensor Contact State (*1)	Non-contact	Contact

2) When mounted with a RS-232C interface   <At Ex-factory: All are turned ON.>

DIPSW1	Function	ON	OFF
DIPSW1-1	Emulation	See table below *2	
DIPSW1-2	Emulation	See table below *2	
DIPSW1-3	(Reserved: Fixed at ON)	-	-
DIPSW1-4	Sensor Adjustment Mode	Enabled	Disabled
DIPSW1-5	(Reserved: Fixed at ON)	-	-
DIPSW1-6	BUSY Condition	Reception Buffer Full/OFF-LINE	Reception Buffer Full
DIPSW1-7	(Reserved: Fixed at ON)	-	-
DIPSW1-8	NE Sensor Contact State (*1)	Non-contact	Contact

* 1: Be aware that operations are not guaranteed if the state set using this bit and the actual NE (Near-End) sensor contact state are different.

* 2: Emulation

DIPSW1-1	DIPSW1-2	Emulation
ON	ON	STAR Line Mode
OFF	ON	STAR Page Mode (supported by ROM version 2.0 later)
ON	OFF	(Reserved)
OFF	OFF	ESC/POS Mode (supported by ROM version 3.0 later)

3) When mounted with a USB interface   \<At Ex-factory: All are turned ON.\>

DIPSW1	Function	ON	OFF
DIPSW1-1	Emulation	See table below *3	
DIPSW1-2	Emulation	See table below *3	
DIPSW1-3	(Reserved: Fixed at ON)	-	-
DIPSW1-4	Sensor Adjustment Mode	Enabled	Disabled
DIPSW1-5	USB mode (*2)	See table belows	
DIPSW1-6			
DIPSW1-7	(Reserved: Fixed at ON)	-	-
DIPSW1-8	NE Sensor Contact State (*1)	Non-contact	Contact

4) When mounted with an Ethernet interface   \<At Ex-factory: All are turned ON.\>

DIPSW1	Function	ON	OFF
DIPSW1-1	Emulation	See table below *3	
DIPSW1-2	Emulation	See table below *3	
DIPSW1-3	(Reserved: Fixed at ON)	-	-
DIPSW1-4	Sensor Adjustment Mode	Enabled	Disabled
DIPSW1-5	(Reserved: Fixed at ON)	-	-
DIPSW1-6	(Reserved: Fixed at ON)	-	-
DIPSW1-7	(Reserved: Fixed at ON)	-	-
DIPSW1-8	NE Sensor Contact State (*1)	Non-contact	Contact

* 1: Be aware that operations are not guaranteed if the state set using this bit and the actual NE (Near-End) sensor contact state are different.

* 2: USB mode (supported by ROM Version 1.2 later)

DIPSW1-5	DIPSW1-6	USB Mode
ON	ON	Mode-0 (Printer Class)
OFF	ON	Mode-2 (Vendor Class New Type)
ON	OFF	Mode-1 (Printer Class New Type)
OFF	OFF	(Reserved)

The Vendor Class Driver is needed for using the Mode 2 (Vendor Class).

* 3: Emulation

DIPSW1-1	DIPSW1-2	Emulation
ON	ON	STAR Line Mode
OFF	ON	STAR Page Mode (supported by ROM version 2.0 later)
ON	OFF	(Reserved)
OFF	OFF	ESC/POS Mode (supported by ROM version 3.0 later)

\<At Ex-factory: DIPSW 1 – 7 is OFF, DIPSW 1-8 is OFF, all others are ON.\>

Serial Interface:

DIPSW1	Function	ON	OFF
DIPSW1-1	Baud Rate	(See table below)	
DIPSW1-2			
DIPSW1-3	Data Length	8 bit	7 bit
DIPSW1-4	Parity Check	Disabled	Enabled
DIPSW1-5	Parity Selection	Odd	Even
DIPSW1-6	Handshake	DTR Mode	Xon/Xoff Mode
DIPSW1-7	(Reserved: OFF)	-	-
DIPSW1-8	(Reserved: OFF)	-	-

\<Details for Baud Rate Settings\>

DIPSW1-1	DIPSW1-2	Baud Rate
ON	ON	9600 bps
OFF	ON	4800 bps
ON	OFF	19200 bps
OFF	OFF	38400 bps

Printing a Self Test Page:

Testing – Printing a Printer Self-Test Page

The TUP900, like all Star printers, has a built-in diagnosis printout that can be manually printed to check the printer's current configuration. This "Self-Test" page also allows the user to confirm that the printer is in fact operating properly.
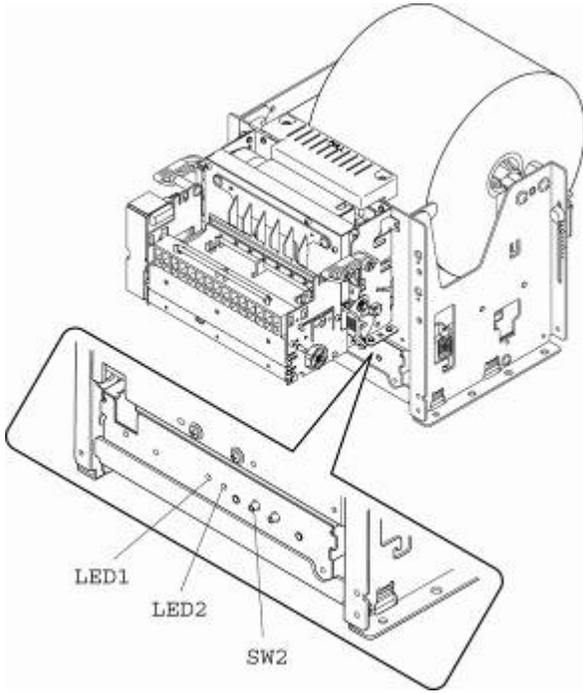
To print a printer self-test, simply follow the steps listed below.

1. Turn the printer's power switch to the OFF position
2. Press and hold the paper feed switch (SW1)
3. Turn the printer's power switch to the ON position
4. Release the paper feed switch (SW1)

NOTE: In order to print a self-test page, the printer must be properly loaded with paper and must have its power supply connected to a live power source.

Example of Self-Test:

```
*** TB9 Ver4.2 -b2.0 ***

Interface : USB

DIP Switch 1
 Sw   12345678
 On   *******
 Off          *

 1,2= Emulation : Star Line/T
 5,6= USB : Mode 0
 8  = NE Sensor : Connect

Memory Switch
      FEDCBA9876543210  HEX.
 <0>  0000000000000000  0000
 <1>  0000000000000000  0000
 <2>  0000000000000000  0000
 <3>  0000000000000000  0000
 <4>  0000000000000000  0000
 <5>  0000000000000000  0000
 <6>  0000000000000000  0000
 <7>  0000000000000000  0000
 <8>  0000000000000000  0000
 <9>  0000000000000000  0000

 <0> 4  = Character Mode : Standard
 <1> 9  = Top Margin : 15mm
 <1> 8  = Black Mark Detect : Invalid
 <1> 4  = Zero Style : Normal Zero
 <1> 3-0= Inter. Char : USA
 <2> 5,4= Print Speed : Normal
 <2> 2-0= Print Density : 1.0
 <3> F-8= Page : Normal
 <3> 4  = ANK Pitch : 12 dot
 <3> 1  = <CR> : Ignore
 <3> 0  = Feed Pitch : 4mm
 <4> 2-0= Printable Area : 104mm
 <5> 7-0= Retract Time : Invalid
 <6> E  = Auto Loading Speed: High
 <6> D  = Auto Loading Error: Invalid
 <6> C  = Auto Loading : Valid
 <6> 3-0= Retract: Storage/Internal
```

Recommended Settings:

```
*** TB9 Ver4.2 -b2.0 ***

Interface : USB

DIP Switch 1
 Sw    12345678
 On    *******
 Off          *

 1,2= Emulation : Star Line/T
 5,6= USB : Mode 0
 8  = NE Sensor : Connect

Memory Switch
      FEDCBA9876543210   HEX.
 <0>  0000000000000000   0000
 <1>  0000000000000000   0000
 <2>  0000000000000000   0000
 <3>  0000000000000000   0000
 <4>  0000000000000001   0001
 <5>  0000000000001010   000A
 <6>  0000000100010001   0111
 <7>  0000000000000000   0000
 <8>  0000000000000000   0000
 <9>  0000000000000000   0000

 <0> 4  = Character Mode : Standard
 <1> 9  = Top Margin : 15mm
 <1> 8  = Black Mark Detect : Invalid
 <1> 4  = Zero Style : Normal Zero
 <1> 3-0= Inter. Char : USA
 <2> 5,4= Print Speed : Normal
 <2> 2-0= Print Density : 1.0
 <3> F-8= Page : Normal
 <3> 4  = ANK Pitch : 12 dot
 <3> 1  = <CR> : Ignore
 <3> 0  = Feed Pitch : 4mm
 <4> 2-0= Printable Area : 80mm
 <5> 7-0= Retract Time : 0.5sec x 10
 <6> E  = Auto Loading Speed: High
 <6> D  = Auto Loading Error: Invalid
 <6> C  = Auto Loading : Valid
 <6> 8  = Presenter Paper : Cut+Eject
 <6> 4  = ASB Paper Position: Valid
 <6> 3-0= Retract: Storage/External
```

Specifications

Specifications:

BASIC SPECIFICATIONS
Printing Specifications

(1) Print Method: Direct Thermal Line Printing
(2) Dot Configuration: 832 dots/line
(3) Dot Density: 8 dots/mm (203 DPI)
(4) Printing Region: Maximum 104 mm (See figure below)

3.75 mm   111.5 ±0.5 mm (Maximum paper width)   3.75 mm
           104 mm (Maximum print region, 832 dots)
0.125 mm   0.125 mm
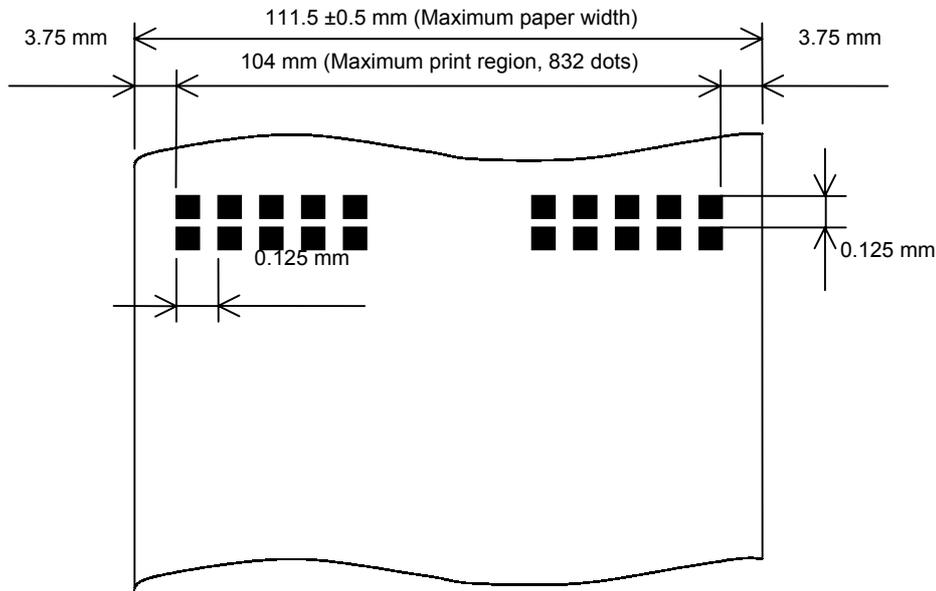
Fig. 3.1.4 Print Region

Notes 1) The mechanism can handle paper widths of 79.5 ±0.5 to 111.5 ±0.5 mm. However, it is recommended that a print layout is set that allows plenty of print margin on the left and right sides for the paper that is used. Also, the standard position of printing to the paper width is center of the paper width.
Left and right margins in the printing region are recommended to be a minimum of 3.75 mm.

2) When using a paper width that is less than the maximum print width of the head (104 mm), consider the recording paper feeding state so that the print region does not leave both edges of the recording paper.

(5) Print Format: Maximum 69 columns (12 × 24 fonts)
                             Maximum 34 columns (24 × 24 Chinese character fonts)
                             (Only on Chinese character models)
(6) Character Space: Programmable
(7) Print Speed: 1) HS mode   Maximum 150 mm/s
                             2) LQ mode   Maximum 110 mm/s
                             3) HQ mode   Maximum 60 mm/s
                             4) Two Color Printing Mode Maximum 60 mm/s

Note 1)   Printing speed varies according to the processing speed of the controller and the temperature control using the head thermistor.

(8) Paper Feed: Thermal Mechanism Module   Friction Feed Method
                             Presenter Module   Roller Friction Feed Method

(*) Models that do not have a presenter employ only thermal mechanism paper feed specifications.

(9) Paper Feed Pitch: 0.125 mm (1 step on the paper feed pulse motor)
(10) Line Width: 4 mm, 3 mm
(11) Cuttable Sheet Length: 75 to 300 mm
(12) Print Head: Line Thermal Head
(13) Presenter: With Recovery Function

(*) These specifications do not apply to models that are not equipped with a presenter

(14) Emulation: Star Line Mode
                             Star Page Mode

                             ESC/POS Mode

Star Micronics America, Inc., 1150 King Georges Post Rd, Edison, NJ 088371
Date: 12/3/2007

Maintenance

11. MAINTENANCE

Perform the following maintenance periodically.

Maintenance Periods: Every six months or after a million lines of printing.

Location of Maintenance: Each detector and the vicinity

Content of Maintenance: Clean away and paper dust or dirt and dust adhering to the detectors in the presenter.

Note 1: Always verify that the power supply has been turned OFF when performing maintenance on the presenter.

Note 2: Remove the two screws on both sides of the presenter, as shown in Figure 11, and rotate the rear guide upward to remove any dust and dirt on the paper detector in the presenter. After performing maintenance, return the rear guide to its original status and tighten the screws. When doing so, do not allow the screws to catch on the wires in the Figure 11.

Screw: TAT 2.6 FC-06.0 FP   Screw: TAT 2.6 FC-06.0 FP

Wire

Rear Guide   Rear Guide

Rotate   Rotate

Paper Detector

Left side   Right side
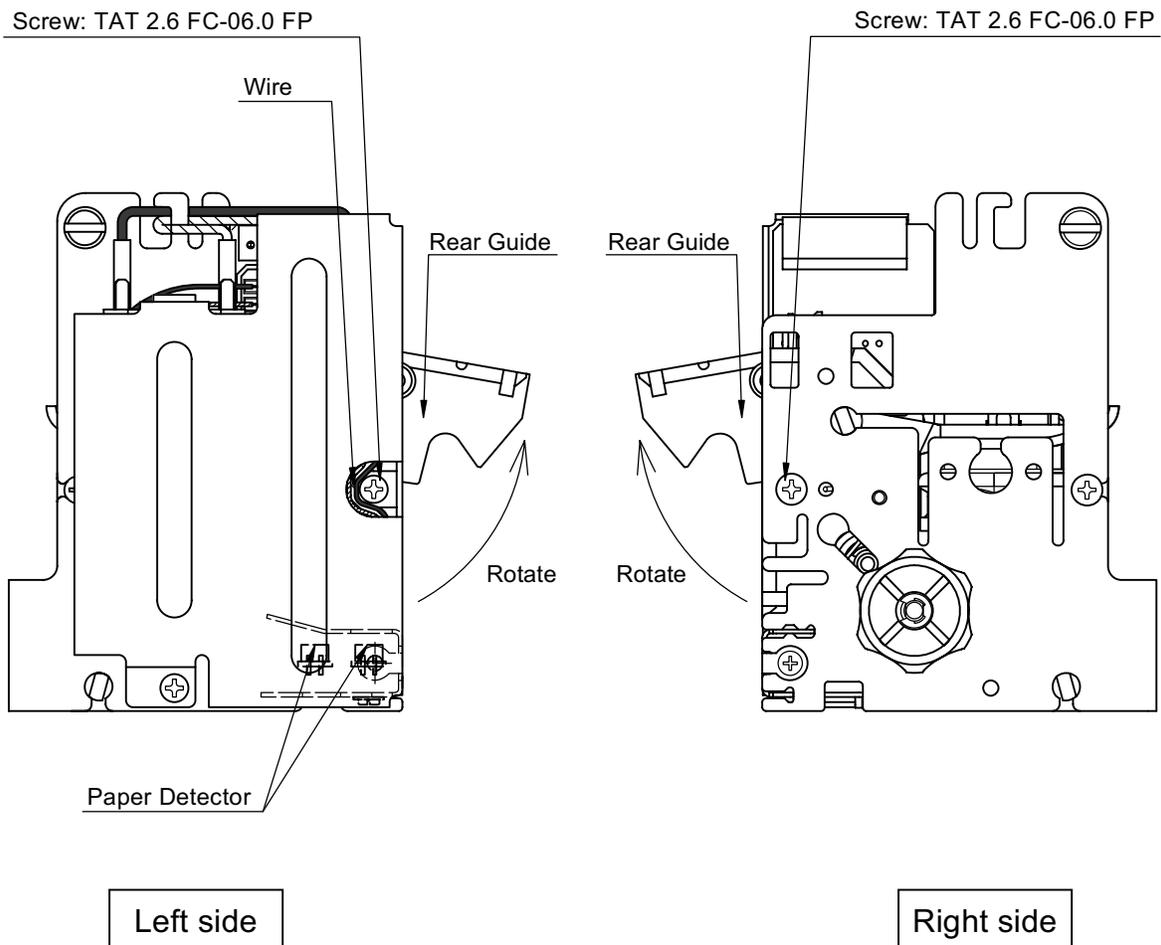
Figure 11-1
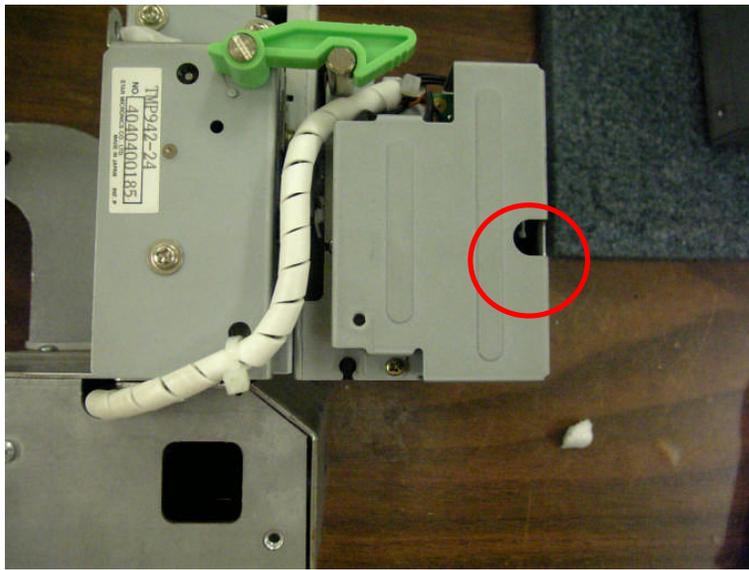
Left View
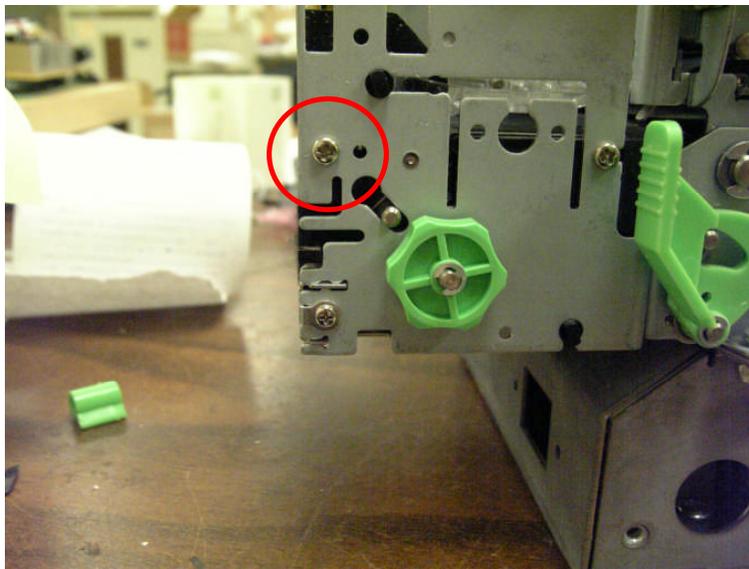
Right View
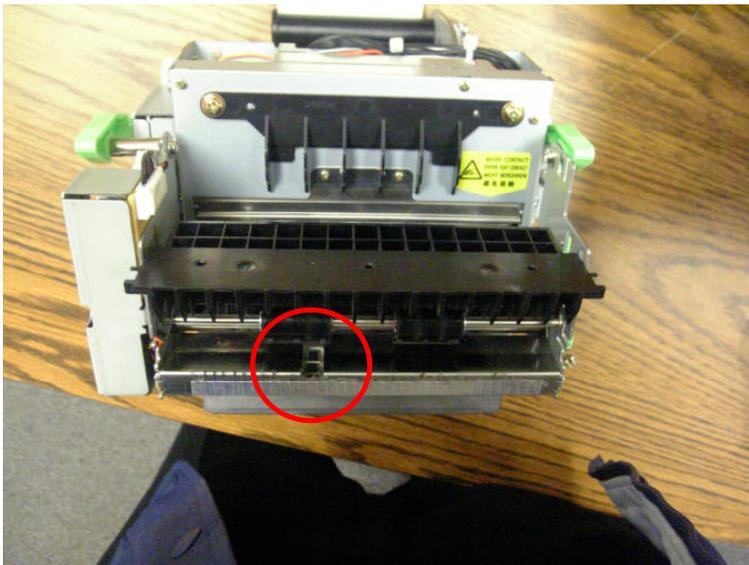
Front View

If the green knob on the side of the presenter (in the picture below) spins when the printer is powered up, this is an indication that the sensor on the presenter is dirty and should be cleaned.
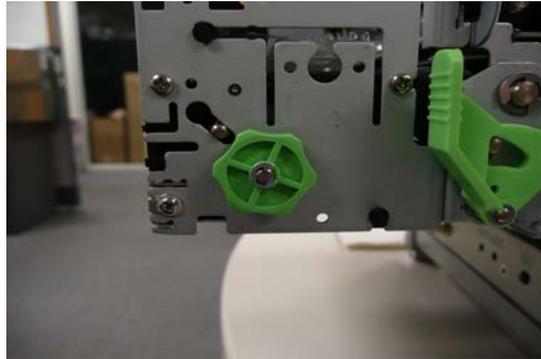
Status Monitor Setup

STATUS SETUP

Please refer to the following instructions for a step by step guide on how to configure and use the Status function.

You will need

Raster Driver:

The raster driver is available as a download from our web site:

http://www.star-micronics.co.jp/service/s_print/

It's important to choose the "TUP992 printer with status monitor." If you have a printer with presenter attached (TMP992 / TUP992) as the presenter will not function correctly with the TUP942 driver.

Memory Switch Utility:

T9setup.exe is currently available from

http://www.star-emea.com/techsupport/drivers.html

Version 1.1 or greater must be used, so that the presenter sensor can be configured.

ASB specifications:

Available from www.starmicronics.com

Installation

You will need to install the printer driver and ensure that the printer can print a self test. The installation method varies by interface. For a parallel printer the printer can be connected and the driver can be installed manually and with a USB printer you should install the driver files and then connect the printer.

Assuming USB Interface:

Extract and run the Raster driver installer.
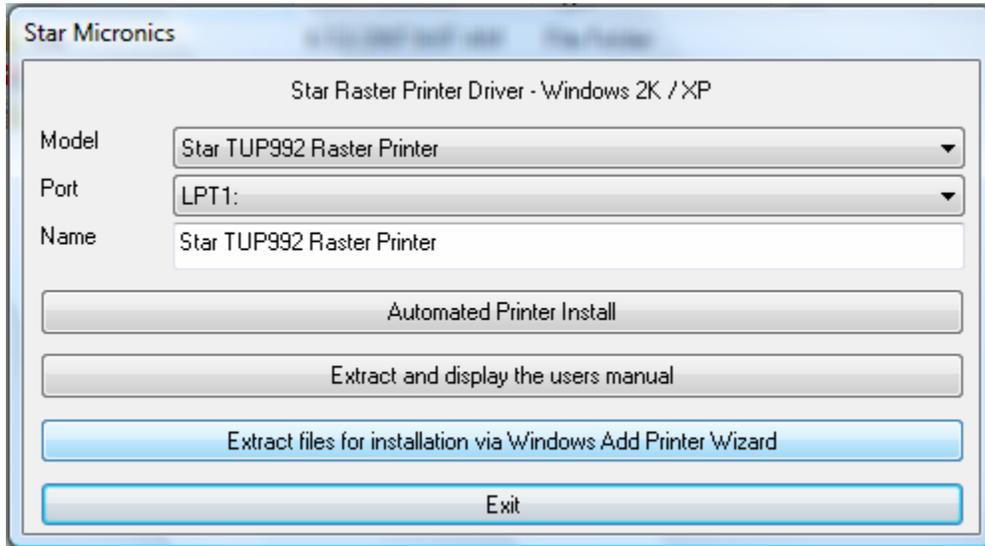
Extract the files for a manual install
- Connect the printer and follow the prompts to allow the printer driver to install.
- Print a windows test page observing that the printer prints loops and cuts the paper.

Configuration

Driver.

In most cases the windows popup should be disabled so that in the event the printer cannot print the status box does not appear.

Please also ensure that the driver has exclusive access to the port. This means that you can have another printer driver installed just it cannot be "connected "to the same port as the printer you are monitoring.

Printer.

If you have a TUP992 (with presenter) you will need to configure the memory switches for correct operation.

Mandatory settings:

In order to get the status of the presenter you must enable the presenter status. In addition to enabling ASB and NSB on the printer.
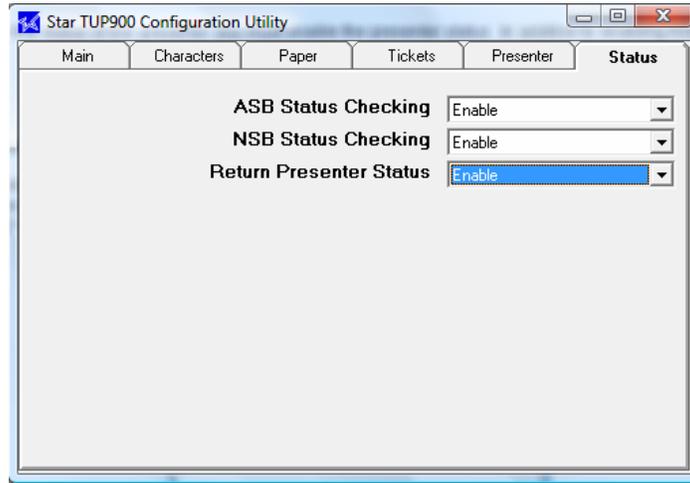
Recommended settings:

It's recommended that you enable the **Loop HOLD eject setting**. This way if a customer does not take the ticket it will be possible to eject the ticket either by a timeout or command. Any subsequent ticket will print; just the ticket will push the previous ticket out of the printer onto the floor.
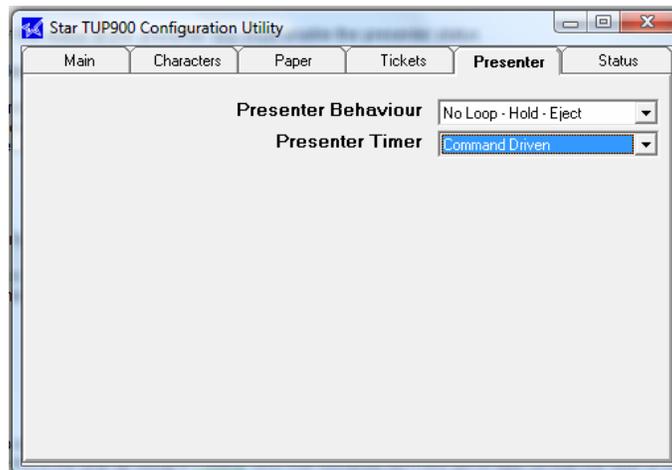
The presenter timer depends on how you want to control the "eject". The settings in the windows driver will override the settings here or you can simply monitor the status and send your own commands.

Example showing the retract / eject feature being set to automatic and to 15 seconds.
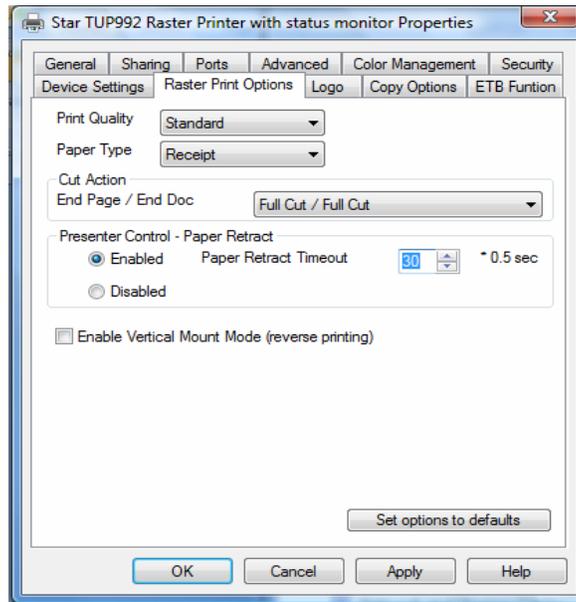
The printer will eject or retract depending on the memory switch setting. A complete list of Presenter commands are at the end of this document.

Download the settings and confirm that the printer shows NSB and ASB set to on the self test.

Getting printer status

The next step is to confirm that you can see the status. We have provided both a VB code VC code as well as documentation on how to get the status back from the printer. For this to work you will have to ensure that the TUP900 is the only printer set to the connected port.

The suite of available programs.
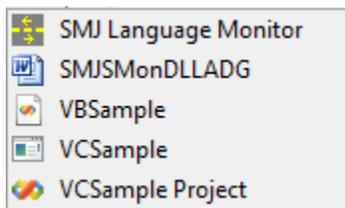
Other recommended reading is the printer driver manual
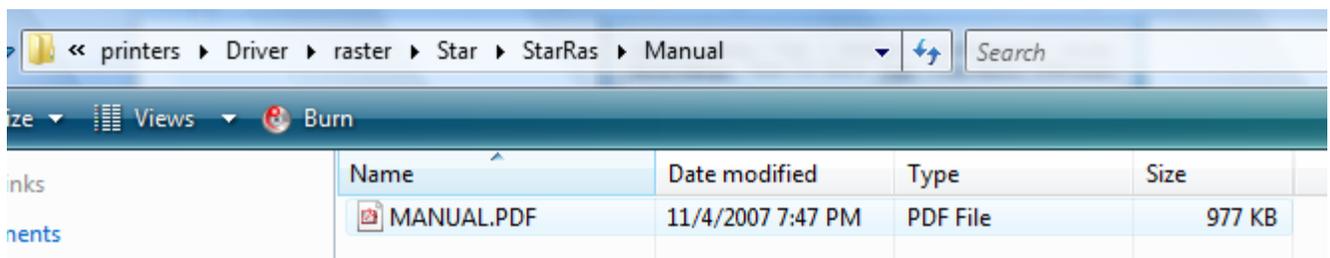
You can create errors on the printer such as paper low and paper in presenter and you should be able to see the status change inside your own application by using our dll and sample code.

So that you can relate the errors you see on the screen to actual errors please refer to the ASB specification manual.